

ABSTRACT OF THE DISCLOSURE

DISPLAYING IMAGE DATA USING AUTOMATIC PRESETS

A computer automated method for setting visualization parameter boundaries in a preset for displaying an image from a 3D data set applicable to magnetic resonance (MR) data, computer tomography (CT) data and other 3D data sets obtained in medical imaging is described. In one example the visualization parameter boundaries are color boundaries. A histogram of data values of voxels within a user-selected volume of interest (VOI) is generated and an analysis of a convex hull spanning the histogram is made to provide one or more visualization thresholds which divide the histogram into sub-regions. The sub-regions relate to different tissue types within the VOI and color boundaries are set based on the visualization thresholds for displaying the different tissue types in different colors. The method allows color boundaries in a preset to be set objectively and automatically so that images can be displayed consistently and with less user manipulation. The method may also provide a measure of the significance of each color boundary in the preset to assist a user in interpreting a displayed image.